Commonwealth of Virginia

Foundations of Accessibility

General Introduction to Accessibility for the Agencies

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In partnership with

VIRGINIA IT AGENCY

Ted
Huff

Accessibility SME, Front End Development Manager

Implement audits and Remediation Strategies for clients in private and public sectors, lead teams through delivery

Evaluate audit reports for additional insights

Champion Accessibility internally and with clients through workshops and trainings

10 Years of Experience with Accenture

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1. Foundation for our Conversation

2. Accessibility for the Commonwealth

3. How Individuals with disabilities use the internet

4. What you can do today

01
Foundation for our Conversation

"Disabilities is an umbrella term, covering impairments, activity limitations, and participation restrictions.

An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations.

Disability is thus not just a health problem. It is a complex phenomenon, reflecting the interaction between features of a person's body and features of the society in which he or she lives."

Disability Etiquette

The words you use and the way you portray individuals with disabilities matters. There are differing points of view on how to best describe members of this community, but the two prominent ways are **Person-First Language** and **Identity-First Language**

Person-First Language	Identity-First Language
Person with a disability, people with disabilities (PwD)	Disabled person
Person with autism	An autistic person
Person who is blind	A blind person

How to use each

- Ask the individual which they prefer
- Use Person-First when describing commonalities, use Identify-First when emphasizing something specific about this community

*This presentation will primarily use **Person-First language** to focus on inclusivity of all website users*
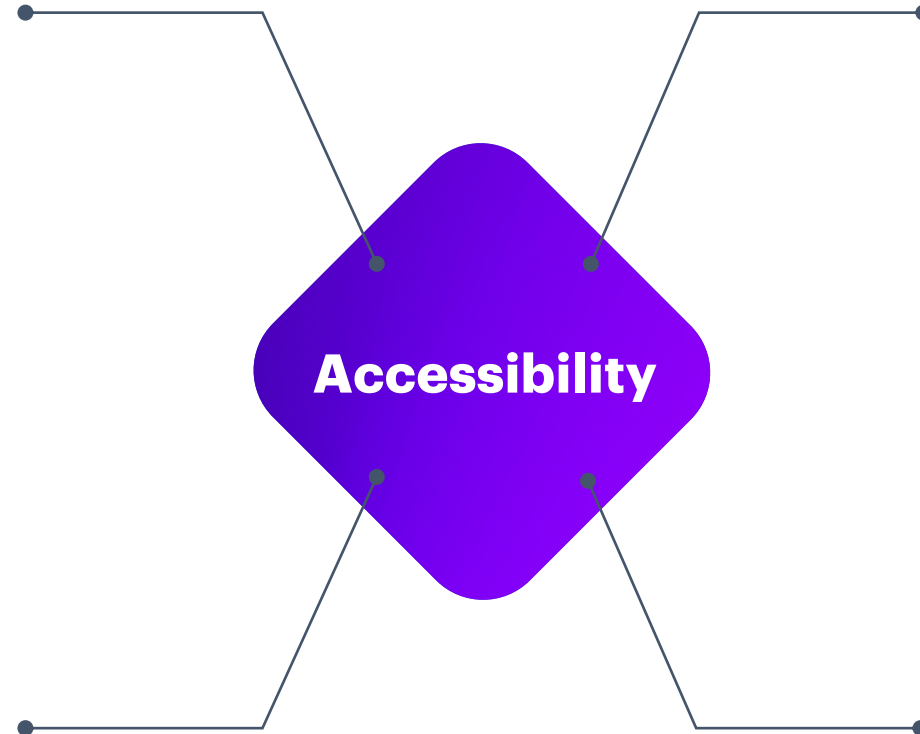
As a human right

Addresses discriminatory aspects related to equivalent user experience for people with disabilities.

As a service for websites & digital products

- Web accessibility means that websites, tools, and technologies are designed and developed so that people with disabilities can use them

- More specifically, people can: perceive, understand, navigate, and interact with the Web

Accessibility

As an opportunity for inclusion

It is about diversity and ensuring inclusion for all to the greatest extent possible.

Usable accessibility

It is about designing products to be effective, efficient, and useful. Usability includes user experience design.
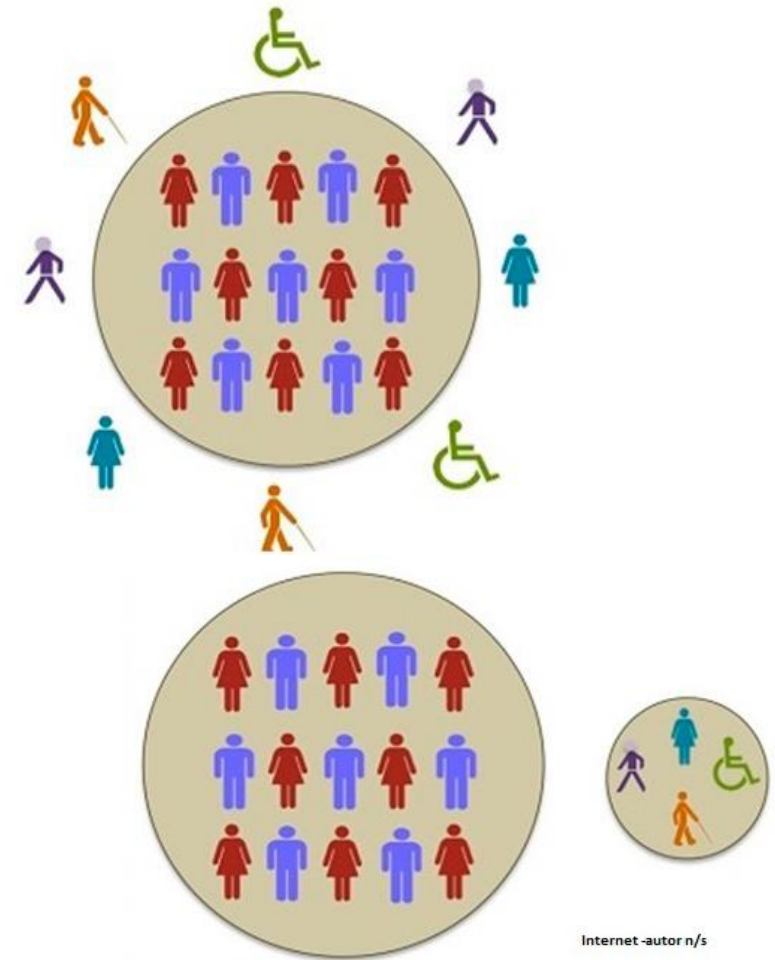
Reference: W3C WORLD WIDE WEB consortium

Exclusion

Consequently, people with disabilities are left out of society as they are not considered *"normal"*. **You don't think about the possibility that they are part of it.**

Segregation

People who are not considered *"normal"* become subjects of care. For example, special institutions are created that fulfill the function of attending to **the needs of these subjects considered "special".**

Internet -autor n/s

Everyone else is looking at their smart devices...

[Click here to watch the video](#)

02
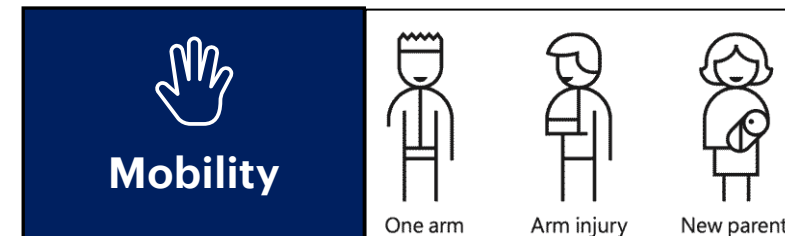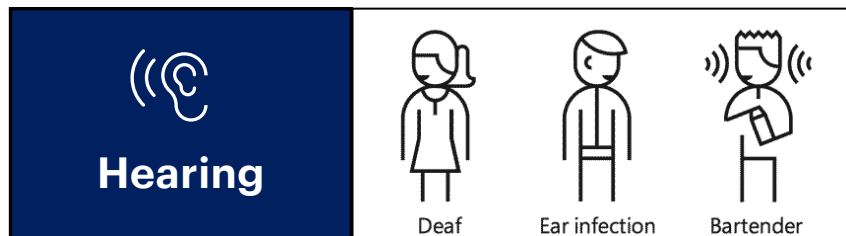# Accessibility for the Commonwealth

According to 2021 American Community Survey *1 Year Estimate*

Over 1 Million Virginians have some form of disability
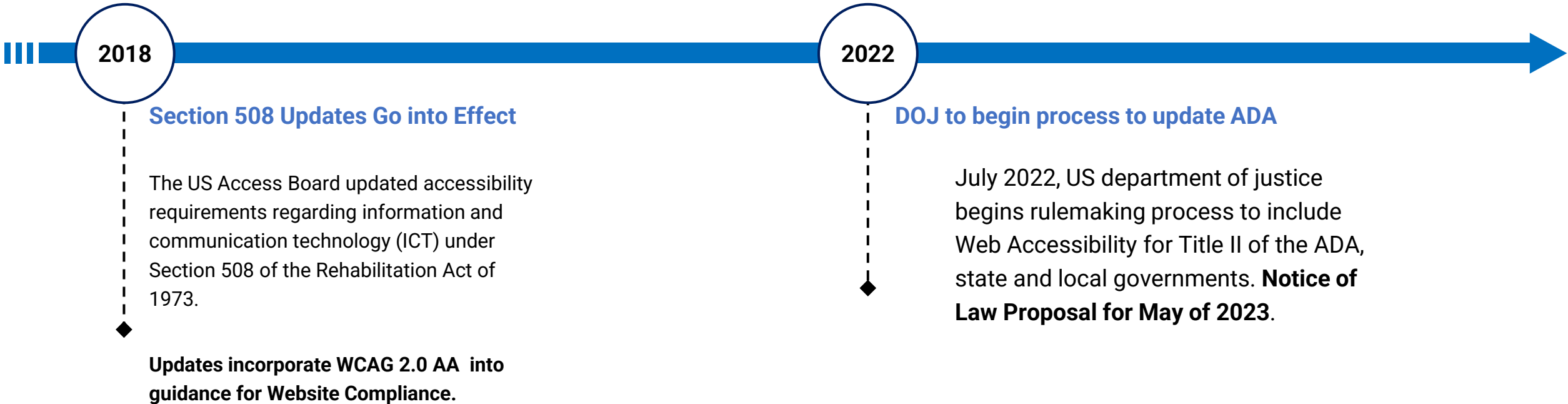
Limitations for users go beyond permanent

100% of humans in the world will face temporary and situational impairments at some point in our lives.

PERMANENT

Permanent impairments from birth, trauma, or developed over time

TEMPORARY

Longer-term impairments arising from injuries and other inconveniences

SITUATIONAL

Largely contextual, shorter-term impairments

Hearing

Deaf | Ear infection | Bartender

Mobility

One arm | Arm injury | New parent

Recent Accessibility Legislative Actions

Two important updates to keep in mind for state and local government digital workers

2018

Section 508 Updates Go into Effect

The US Access Board updated accessibility requirements regarding information and communication technology (ICT) under Section 508 of the Rehabilitation Act of 1973.

Updates incorporate WCAG 2.0 AA into guidance for Website Compliance.

2022

DOJ to begin process to update ADA

July 2022, US department of justice begins rulemaking process to include Web Accessibility for Title II of the ADA, state and local governments. **Notice of Law Proposal for May of 2023**.

03
How individuals with disabilities use the internet

TECHNOLOGIES FOR

MOBILITY IMPAIRMENTS

- Switches
- Special Keyboards
- Mouth Stick
- One Handed Keyboard
- Bigger Keyboards
- Speech Recognition (Dragon)

TECHNOLOGIES FOR

VISUAL IMPAIRMENTS

- Screen Readers (JAWS, NVDA, Voice Over)
- Screen Magnification
- Color Customization (High Contrast, Dark Mode)

TECHNOLOGIES FOR

HEARING IMPAIRMENTS

- Closed Captions
- Transcriptions

TECHNOLOGIES FOR

COGNITIVE IMPAIRMENTS

- Time
- Animations
- Letter Spacing

Screen Reader Demonstration

Challenges for individuals with disabilities online

- Images not identified with alternative text
- Non-Descriptive links
- Improper Headings
- No Visual Focus Indicators
- Color Contrast
- Failure to use proper labels
- Table Structure

04
What you can do today

- Don't begin your text with "Image of…"
- "How would you describe this image over the phone"
- Include text from the image
- Is this image decorative?

Context matters

Alt-text on a page about recent turnout for track tryouts:
Harvard Stadium with two lone runners bounding up the steps.

Alt-text on page about renovation projects:
Harvard Stadium with cracked concrete pillars.

Nondescript Links

- Don't use links such as "click here" or "link"

- Ensure all links with the same call to action have the same effect

- Make sure your text/word is large enough for someone to click

- Use <a> tags for links, <button> for buttons

Don't use: *Click <a>here for more information regarding accessibility.*

Do use: *Click here for <a>more information regarding Accessibility*

- Don't use Heading elements just for visual formatting

- Pages should have a single H1 element

- Headings should be grouped logically under a parent element – H1 > H2 > H3 instead of H1 > H4 > H2

Show where the user is focused

- Don't just override the default browser :focus/:focus-visible without a custom style

- Consider combining :hover and :focus to ensure equitable experiences

- Ensure all designed interactive elements have all necessary action states

Color Contrast

- Don't use color alone to indicate status

- Font Colors should be distinct against their backgrounds

- Use Color Contrast Checks in design and development

- Don't make a labels out of other elements like <div> and <span>

- Labels should be associated with an input field
  - Labels should either reference the input or contain it, not just visually close by

```html
<label class="usa-label" for="input-type-text">Text input label</label>
<input class="usa-input" id="input-type-text" name="input-type-text" />
<label class="usa-label" for="input-focus">Text input focused</label>
<input class="usa-input usa-focus" id="input-focus" name="input-focus" />
<div class="usa-form-group usa-form-group--error">
  <label class="usa-label usa-label--error" for="input-error"
    >Text input error</label
  >
  <span class="usa-error-message" id="input-error-message" role="alert"
    >Helpful error message</span
  >
  <input
    class="usa-input usa-input--error"
    id="input-error"
    name="input-error"
    aria-describedby="input-error-message"
  />
</div>
<label class="usa-label" for="input-success">Text input success</label>
<input
  class="usa-input usa-input--success"
  id="input-success"
  name="input-success"
/>
<label class="usa-label" for="input-type-textarea">Text area label</label>
<textarea
  class="usa-textarea"
  id="input-type-textarea"
  name="input-type-textarea"
></textarea>
```

- Don't make a table out of other elements like <div> and <span>

- Use Table Headings, <thead> <th>, to associate columns with data

- Add Captions and Summaries to enhance the understanding and labeling of the data

Component code

```html
<table class="usa-table usa-table--borderless">
  <caption>
    Borderless table: A borderless table can be useful when you
    information to feel more a part of the text it accompanies
  </caption>
  <thead>
    <tr>
      <th scope="col">Document title</th>
      <th scope="col">Description</th>
      <th scope="col">Year</th>
    </tr>
  </thead>
  <tbody>
    <tr>
      <th scope="row">Declaration of Independence</th>
      <td>
        Statement adopted by the Continental Congress declaring
        from the British Empire.
      </td>
      <td>1776</td>
    </tr>
    <tr>
      <th scope="row">Bill of Rights</th>
```
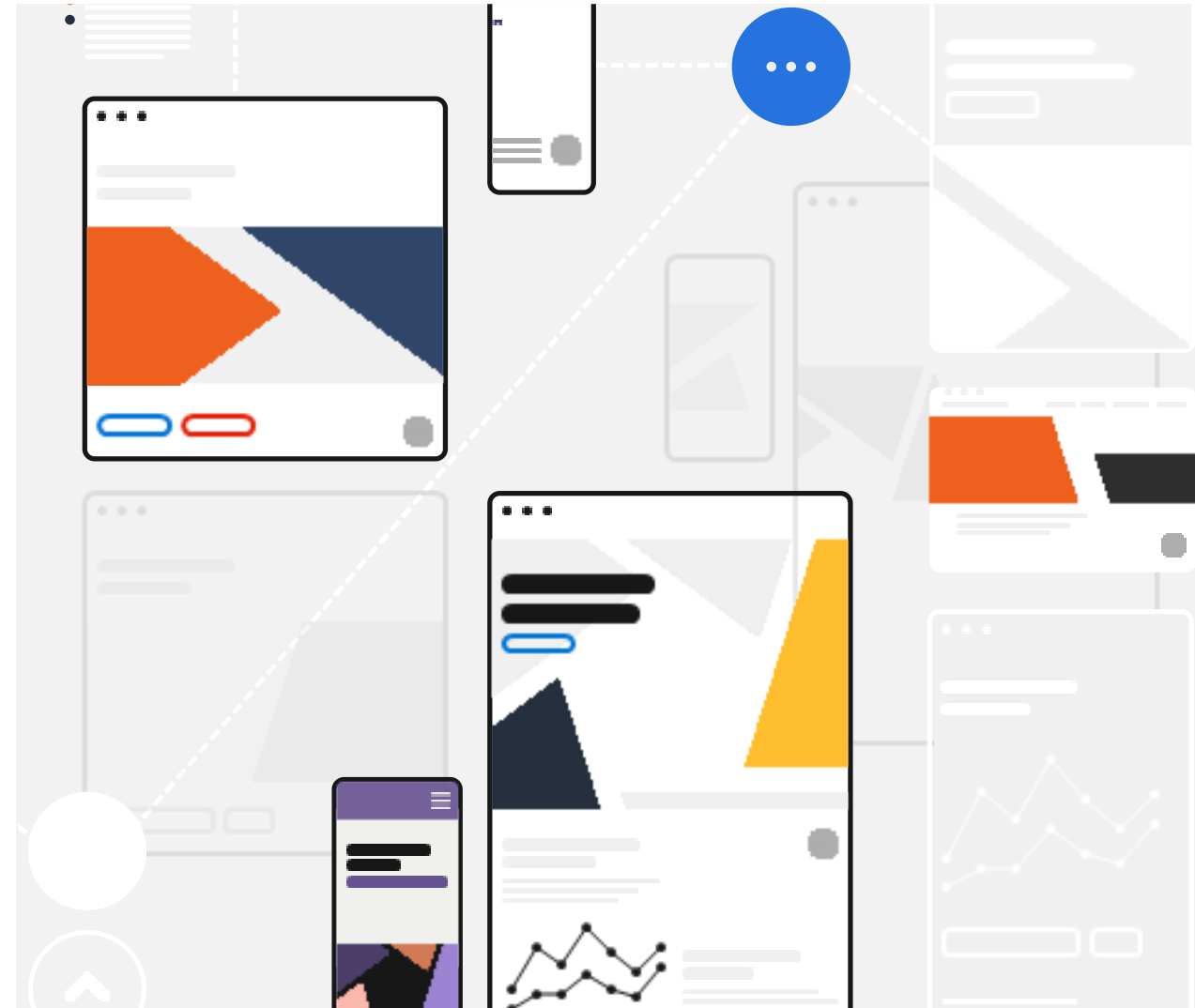
US Web Design Platform

- https://designsystem.digital.gov/

Further Reading on Alternative Text

- https://webaim.org/techniques/alttext/

Online Color Contrast Checker

- https://coolors.co/contrast-checker/

Questions

Next Steps

▸▸▌
- Executing the accessibility training assessment based on interviews and Siteimprove accessibility performance score